

WHAT IS CLAIMED IS:

- 1           1.    A communication device operable to configure  
2    settings related to a function supported by the communication  
3    device, said communication device comprising:  
4                an electronic storage medium storing instructions  
5    to enable the communication device to:  
6                transmit     an     indication     of     needed  
7    configuration information to a management server; and  
8                receive a response from said management  
9    server,    said    response    including    said    needed  
10   configuration information required to configure said  
11   communication device to allow for use of said function.
- 1           2.    The communication device of claim 1, wherein said  
2    electronic storage medium transmits said indication in  
3    response to a request received from said management server  
4    for said indication of said configuration information needed  
5    to allow operation of said function.

1           4.    The communication device of claim 1, wherein the  
2    indication of the needed configuration information includes  
3    an identification of a plurality of parameters and an  
4    indication of a required format for the plurality of  
5    parameters.

29

1           6.    The communication device of claim 1, wherein the  
2    function comprises at least one of a Wireless Application  
3    Protocol (WAP) functionality and an electronic mail  
4    functionality.

1           7.    The communication device of claim 1, wherein the  
2    communication device transmits the indication of the needed  
3    configuration information and receives the response from the  
4    management server using Extensible Mark-up Language (XML).

1           8.    The communication device of claim 1, wherein the  
2    communication device comprises a wireless device.

1           9.    The communication device of claim 1, wherein said  
2    indication includes an identification of one of the type and  
3    manufacturer of the communication device.

1           10. The communication device of claim 1, wherein said  
2       communication device transmits said indication in response  
3       to one of a power up of the communication device and a user  
4       menu selection.

1           11. The communication device of claim 1 further  
2       comprising a control unit for reading the instructions from  
3       the electronic storage medium and executing the instructions.

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1           12. A method for configuring settings related to a  
2       function of a communication device, said method comprising  
3       the steps of:

4                 transmitting an identification of configuration  
5       information needed to allow operation of said function to a  
6       management server; and

7                 receiving a response from said management server  
8       including said configuration information required to  
9       configure said communication device to allow for use of said  
10      function.

1           13. The method of claim 12, wherein said transmitting  
2       step is in response to a request received from said  
3       management server for said identification of configuration  
4       information needed to allow operation of said function.

1           14. The method of claim 12, wherein the identification  
2       of the needed configuration information includes an  
3       identification of a plurality of parameters and an indication  
4       of a format for said plurality of parameters.

1           15. The method of claim 12, wherein the identification  
2 of the needed configuration information includes an  
3 identification of said function and one of a type and  
4 manufacturer of the communication device.

1           16. The method of claim 12, wherein the identification  
2 of the needed configuration information is transmitted in  
3 response to one or a power up of the communication device,  
4 and a user menu selection on the communication device, and  
5 an attempt to use said function.

1           17. A management system capable of learning at least  
2 one requirement of a previously unknown function of a  
3 communication device, said management system comprising:  
4           a management server operable to:  
5                 store a list of communication devices and  
6 configuration information pertaining to communication  
7 devices;  
8                 receive, from said communication device, an  
9 indication of configuration information pertaining to  
10 said previously unknown function;  
11                 adapt to enable use of said previously  
12 unknown function in response to the received indication  
13 of said configuration information; and  
14                 update said list of communication devices and  
15 configuration information to include said previously  
16 unknown function in response to the received indication  
17 of said configuration information.

1           18. The management system of claim 17, wherein said  
2 management server is further operable to:

3                 receive a request for configuration data for said  
4 previously unknown function from a particular communication  
5 device; and

6                 transmit a request to said communication device for  
7 said indication of configuration information related to said  
8 previously unknown function, wherein said indication of said  
9 configuration information is received in response to said  
10 request.

1           19. The management system of claim 18, wherein said  
2 communication device transmits said indication of said  
3 configuration information to said management server in  
4 response to said request.

1           20. The management system of claim 17, wherein said  
2 indication of configuration information comprises an address  
3 of a server associated with the previously unknown function.



1           21. The management system of claim 20, wherein said  
2   management server further operates to retrieve data relating  
3   to the previously unknown function from the server at said  
4   address.

1           22. The management system of claim 21, wherein said  
2 data comprises said indication of said configuration  
3 information.

1           23. The management system of claim 17, wherein the  
2     management server determines a value of at least one  
3     parameter identified in said indication of said configuration  
4     information.

1        24. The management system of claim 23, wherein the  
2        management server transmits the value of the at least one  
3        parameter to the communication device.

1           25. The management system of claim 23, wherein the  
2   value of the at least one parameter is transmitted in a  
3   Extensible Mark-up Language (XML).

1           26. The management system of claim 25, wherein the XML  
2   message is formatted in accordance with a format indicated  
3   by the indication of the configuration information.

1           27. A method for enabling a management system to learn  
2     at least one requirement of an unknown function, said method  
3     comprising:

4                 determining whether at least one of a device and  
5     a     function identified in a message received by the  
6     management system is unknown;

7                 requesting information relating to the at least one  
8     of the device and the function, after determining that at  
9     least one of the device and the function is unknown;

10                receiving said requested information from said  
11     device;

12                determining a set of configuration parameters  
13     necessary to use the at least one of the unknown function and  
14     the unknown device in response to said received information;  
15     and

16                sending the set of configuration parameters to said  
17     device.

1           28. The method of claim 27 further comprising the step  
2   of initializing at least one setting of said device according  
3   to the set of configuration parameters.

1           29. The method of claim 27 further comprising the steps  
2   of:

3           building a user interface, in response to the  
4   received information, for entry of the set of configuration  
5   parameters; and

6           receiving an entry of the determined set of  
7   configuration parameters from an operator using said user  
8   interface.

1           30. A control unit for configuring settings related to  
2           a  
3       function supported by a communication device, said control  
4       unit operable to:  
5               control a transceiver to transmit an indication of  
6       needed configuration information to a management server; and  
7               receive via said transceiver a response from said  
8       management server, said response including the needed  
9       configuration information required to configure the  
10      communication device to allow for use of said function.